



## **Request for City Council Committee Action From the Department of Public Works**

**Date:** January 6, 2004  
**To:** Honorable Sandra Colvin Roy, Chair Transportation & Public Works Committee  
**Referral to:** Honorable Barb Johnson, Chair Ways & Means Committee

**Subject:** **LED Pedestrian Indication Replacement Program**

### **Recommendation:**

Increase the appropriation for the PW – Transportation Capital Agency in Permanent Improvement Fund (4100/943/9440 B1692020) by \$64,000 and increase the revenue source (4100-943-9440 -Source 3755) by \$64,000 to be reimbursed through the Xcel Energy Rebate Program.

### **Previous Directives:**

July 12, 2002 (Resolution 2002R-248) Redesignating funds in the amount of \$375,000 from Controller Conversion to LED Replacement.

July 12, 2002 (Resolution 2002R-249) Requesting the Board of Estimate and Taxation to substitute bonding proceeds designated for Controller Conversion to LED Replacement.

Prepared or Submitted by: Steven Mosing, P.E. 673-5746

Approved by: \_\_\_\_\_  
Klara A. Fabry, P. E., City Engineer, Director of Public Works

**Presenters:** Jon Wertjes, P.E. Assistant Director, Transportation and Parking Services

### **Financial Impact** (Check those that apply)

☐ No financial impact - or - Action is within current department budget.  
(If checked, go directly to Background/Supporting Information)

- ☒ Action requires an appropriation increase to the Capital Budget  
☐ Action requires an appropriation increase to the Operating Budget  
☐ Action provides increased revenue for appropriation increase  
☐ Action requires use of contingency or reserves  
☐ Other financial impact (Explain):

☐ Request provided to the Budget Office when provided to the Committee Coordinator

## **Background/Supporting Information:**

This program consists of replacing pedestrian signal indications which are illuminated by incandescent bulbs with units which use LEDS for illumination.

Public Works is proposing to increase the funding in the LED Replacement Program. Through this program we have installed 2,068 LED pedestrian signal indications, saved the City \$64,000 in electrical costs and collected \$27,040 in energy rebates with an additional rebate of \$55,680 being processed. We would like to continue this program by utilizing the energy rebate dollars to install and additional 220 indications. At the completion of the additional LED installations, the energy savings will increase \$7,000/year.

Funds in the current LED replacement program have been depleted. The City will receive \$55,680 in rebates from Xcel Energy due to the installation of 1,392 Pedestrian LED indications on the last rebate submittal. Public Works is proposing to utilize rebate funds in the amount of \$64,000 to continue this program. These funds would consist of \$55,680 in rebates currently being processed and an additional \$8,320 in rebates that will be received at the completion of the proposed LED replacement addition. The Xcel Energy Rebate Program is guaranteed through the year 2004.

## **History and Logic**

This Program replaces existing incandescent pedestrian indications at signalized intersections with LED pedestrian indications. The requested funding will allow City forces to properly house and bracket the LED indication to the signal pole. Once complete, changing LED indications in the future will be as easy as changing an incandescent lamp.

Currently the City operates and maintains approximately 800 signalized intersections, which includes 6,400 incandescent pedestrian indications. Each of these indications consumes 69 watts of electricity hourly totaling 10,600 kilowatt-hours per day for the entire City. Technology currently exists where these same indications can be illuminated using Light Emitting Diodes (LED). These LED indications utilize about 10 watts of electricity each, which would reduce the power consumption from the incandescent indications by about 85%.

A substantial portion of the budget is the cost of electricity (i.e. signals and street lighting). By replacing pedestrian indications for the entire City (6,400 indications), the City would save as much as \$200,000 a year in electrical costs. Further, these indications have a service life of 10 years compared to 2 years for an incandescent lamp; this would allow maintenance staff to address other electrical infrastructure tasks.

## **Other Benefits**

Long life and low maintenance. LED life expectancy is 15 years compared to about 1.5 years for incandescent bulb indications.

Pedestrian LED indications are brighter.

Xcel Energy currently is offering a rebate of \$40 for each pedestrian LED indication installed through 2004. So far the City has received rebates amounting to \$27,040.